

All the Liquor You Can Drink on the House— All for Science's Sake

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But Federal Researchers Find Subjects of Tests Are Not Cut Out to Be Guinea Pigs

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WASHINGTON—Nancy, a 10-year-old, has been drinking liquor for about three years now. Day after day men ply her with free booze. But Nancy never drinks enough to get crocked.

Nancy is a light-brown rhesus monkey native to India. At present, she's tippling in a little amex at St. Elizabeths Hospital, a mental institution here. Surrounding her are 25 male drinking companions, also monkeys of the Indian rhesus variety. They do not get tight either.

The bartenders in this monkey saloon are researchers from the Government's National Center for Prevention and Control of Alcoholism, established in October 1966; they are only too glad to give Nancy and her pals all the liquor they desire. "We want to get them addicted," says Dr. Jack H. Mendelson, chief of the National Center. The reason: Unless a suitable test animal can be hooked on hooch much important work on the causes and treatment of alcoholism in human beings will be stymied.

If the monkeys would only be more cooperative, the researchers might push them into a step-by-step descent into alcoholism; all along the way, they could study the effects on the brain. As soon as alcoholism became complete, the scientists could promptly remove the brain and other organs for scrutiny of the damage.

Automatic Bourbon Dispensers

The bartenders have some potent enticements in the St. Elizabeths primate pub. One of the chief drinks served is Hiram Walker bonded bourbon. The monkeys sit in "restraining chairs," which keep them from using their hands, and the straight 100-proof bourbon goes into bottles with valve-controlled openings near the monkeys' mouths; a slight touch of the valves by the monkeys releases the liquor into their mouths.

Bourbon is the main offering, says research psychologist Torr. Gentry, because human alcoholics being observed separately at St. Elizabeths show a preference for it, and the aim is maximum consistency between the two studies.

But the researchers also tempt the monkeys with mixed drinks—either "screwdrivers" made of orange juice and ethyl alcohol or Metrecal cocktails, which combine the diet product with ethyl alcohol. (Metrecal is used because other experiments showed that "mice liked it and got stoned" on the alcohol, Mr. Gentry explains.)

To further encourage Nancy and her friends to become lushes, the booze-providers can penalize non-drinkers with electric shocks. They plan one such experiment that will involve an "executive monkey" and an underling. The executive will be able to make a decision to drink in order to avoid an electric shock for both himself and the second animal; the underling, lacking any decision-making power, will have to depend entirely on his boss.

Drinking Under Stress

Related experiments done at Massachusetts General Hospital in Boston found that an executive monkey already inclined to drink some alcohol increased his consumption when faced with the stress of making a decision. In the Massachusetts General studies, the executive monkeys had to decide to press a lever to avoid shocks; both alcoholic beverages and water were available to them, and in this situation the monkeys that had previously shown a taste for alcohol drank more liquor than they did before being subjected to stress.

The St. Elizabeths researchers also are using reward-conditioning methods, in which food is the main prize for nipping at the bottle, and they have chanced upon one conditioner that they hadn't reckoned on: When Nancy was "in heat" once, says Mr. Gentry, "the male monkeys on either side of her tended to drink more alcohol."

But despite all the lures and encouragements, neither Nancy nor her companions at the monkey saloon have yet gotten thoroughly smashed, much less become alcoholics. In her three years of drinking, Nancy "has never gotten to the point where you could call her crocked," says David Latham, a researcher who worked with her at Massachusetts General Hospital before she was shipped here last January.

This isn't exactly surprising to the researchers, though. During more than a decade of similar efforts by scientists around the country, one strain of family-inbred mice has gotten hooked on alcohol. But other than that, the offerings of scientist-bartenders to cats, rats, monkeys and mice have largely failed to produce a dependably looped laboratory lush.

"We aren't sure why yet," says Dr. Mendelson. "Tests have shown that a number of animals drink more in stress situations. Men, too, may start drinking because of some degree of stress or pain, but remove these factors and the men often continue drinking. When you remove them with animals, they often show a lack of preference for alcohol and even an aversion to it at times."